

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A semiconductor laser device comprising:

a first nitride based semiconductor layer including a light emitting layer and containing at least one of indium, gallium, aluminum, boron and thallium;

a ridge portion formed in a region having a predetermined width on said first nitride based semiconductor layer, having an upper surface having a first width and a side surface, and containing at least one of indium gallium, aluminum, boron and thallium;

a current blocking layer formed on said first nitride based semiconductor layer and on a region from the side surface of said ridge portion to the upper surface thereof by a transverse growth technique, and having an opening having a second width smaller than said first width on the upper surface of said ridge portion; and

a second nitride based semiconductor layer formed on the upper surface of said ridge portion and containing at least one of indium, gallium, aluminum, boron and thallium, wherein

an end portion of said current blocking layer is in contact with a part of the upper surface of said second nitride based semiconductor layer formed on the upper surface of said ridge portion, wherein

said first nitride based semiconductor layer comprises an n-type cladding layer, said light emitting layer, and a p-type cladding layer, and

said ridge portion comprises a part of said p-type cladding layer.

Claim 2 (original): The semiconductor laser device according to claim 1, wherein
said current blocking layer is composed of a nitride based semiconductor containing at least one of indium, gallium, aluminum, boron and thallium.

Claim 3 (Canceled):

Claim 4 (original): The semiconductor laser device according to claim 2, wherein
said current blocking layer contains aluminum and gallium.

Claim 5 (canceled).

Claim 6 (original): The semiconductor laser device according to claim 2, wherein
said current blocking layer contains indium and gallium.

Claim 7 (Currently Amended):

A semiconductor laser device comprising:

a first nitride based semiconductor layer including a light emitting layer and containing at least one of indium, gallium, aluminum, boron and thallium;

a ridge portion formed in a region having a predetermined width on said first nitride based semiconductor layer, having an upper surface having a first width and a side surface, and containing at least one of indium gallium, aluminum, boron and thallium;

a current blocking layer formed on said first nitride based semiconductor layer and on a region from the side surface of said ridge portion to the upper surface thereof by a transverse growth technique, and having an opening having a second width smaller than said first width on the upper surface of said ridge portion; and

a second nitride based semiconductor layer formed on the upper surface of said ridge portion and containing at least one of indium, gallium, aluminum, boron and thallium, wherein

an end portion of said current blocking layer is in contact with a part of the upper surface of said second nitride based semiconductor layer formed on the upper surface of said ridge portion, wherein

said second nitride based semiconductor layer is formed so as to cover a region above said opening and a region on said current blocking layer.

Claim 8 (Previously presented): The semiconductor laser device according to claim 7, further comprising
an electrode formed on said second nitride based semiconductor layer.

Claim 9 (original): The semiconductor laser device according to claim 1, wherein
said current blocking layer has a single-layer structure.

Claim 10 (original): The semiconductor laser device according to claim 1, wherein
said current blocking layer has a multi-layer structure.

Claim 11 (Currently Amended): A method of fabricating a semiconductor laser device,
comprising the steps of:

forming a first nitride based semiconductor layer including a light emitting layer and
containing at least one of indium, gallium, aluminum, boron and thallium;

forming a ridge portion having an upper surface having a first width and a side surface, and
containing at least one of indium, gallium, aluminum, boron and thallium in a region having a
predetermined width on said first nitride based semiconductor layer;

forming on a region from the side surface of said ridge portion to the upper surface thereof
a current blocking layer by a transverse growth technique having an opening having a second width
smaller than said first width on the upper surface of said ridge portion;

forming a second nitride based semiconductor layer containing at least one of indium, gallium, aluminum, boron and thallium on the upper surface of said ridge portion in said opening,

forming said first nitride based semiconductor layer comprises the step of forming an n-type cladding layer, said light emitting layer, and a p-type cladding layer in this order, and

forming said ridge portion comprises the step of etching said p-type cladding layer, except in a region having said first width of said p-type cladding layer, wherein

an end portion of said current blocking layer is in contact with a part of the upper surface of said second nitride based semiconductor layer formed on the upper surface of said ridge portion.

Claim 12 (Currently Amended): A method of fabricating a semiconductor laser device, comprising the steps of:

forming a first nitride based semiconductor layer including a light emitting layer and containing at least one of indium, gallium, aluminum, boron and thallium;

forming a ridge portion having an upper surface having a first width and a side surface, and containing at least one of indium, gallium, aluminum, boron and thallium in a region having a predetermined width on said first nitride based semiconductor layer;

forming on a region from the side surface of said ridge portion to the upper surface thereof a current blocking layer by a transverse growth technique having an opening having a second width smaller than said first width on the upper surface of said ridge portion; and

forming a second nitride based semiconductor layer containing at least one of indium, gallium, aluminum, boron and thallium on the upper surface of said ridge portion in said opening, wherein

an end portion of said current blocking layer is in contact with a part ~~of the upper surface~~ of said second nitride based semiconductor layer formed on the upper surface of said ridge portion, wherein

said current blocking layer is composed of a nitride based semiconductor containing at least one of indium, gallium, aluminum, boron and thallium, and

the step of forming said current blocking layer comprises the steps of forming a striped insulating film on the upper surface of said ridge portion, and forming said current blocking layer extending to a region, excluding the region having said second width, on the upper surface of said ridge portion from a region on said first nitride based semiconductor layer on both sides of said ridge portion by using a transverse growth technique.

Claims 13-14 (canceled).

Claim 15 (Currently Amended): A method of fabricating a semiconductor laser device, comprising the steps of:

forming a first nitride based semiconductor layer including a light emitting layer and containing at least one of indium, gallium, aluminum, boron and thallium;

forming a ridge portion having an upper surface having a first width and a side surface, and containing at least one of indium, gallium, aluminum, boron and thallium in a region having a predetermined width on said first nitride based semiconductor layer;

forming on a region from the side surface of said ridge portion to the upper surface thereof a current blocking layer by a transverse growth technique having an opening having a second width smaller than said first width on the upper surface of said ridge portion; and

forming a second nitride based semiconductor layer containing at least one of indium, gallium, aluminum, boron and thallium on the upper surface of said ridge portion in said opening, wherein

an end portion of said current blocking layer is in contact with a part of the upper surface of said second nitride based semiconductor layer formed on the upper surface of said ridge portion, wherein

the step of forming said second nitride based semiconductor layer comprises the step of forming said second nitride based semiconductor layer for covering a region above said opening and a region on said current blocking layer.

Claim 16 (previously presented): The method according to claim 15, further comprising the step of

forming an electrode on said second nitride based semiconductor layer.

Claim 17 (original): The method according to claim 11, wherein
the step of forming said current blocking layer comprises the step of forming a single nitride based semiconductor layer containing at least one of indium, gallium, aluminum, boron and thallium.

Claim 18 (original): The method according to claim 11, wherein
the step of forming said current blocking layer comprises the step of stacking a plurality of nitride based semiconductor layers containing at least one of indium, gallium, aluminum, boron and thallium.

Claim 19 (previously presented): The semiconductor laser device according to claim 4,
wherein
the ratio of the first width of the upper surface of said ridge portion to the second width of the opening of said current blocking layer is not less than 0.1 nor more than 0.95.

Claim 20 (previously presented): The method according to claim 12, wherein
said current blocking layer contains gallium and aluminum, and
the ratio of the first width of the upper surface of said ridge portion to the second width of the opening of said current blocking layer is not less than 0.1 nor more than 0.95.